To:	Harvey Packard for email distrib'n	**Date:**	August 15, 2003
From:	Reid Fisher		
via:	email	**cc:**	Sylvia Hamilton/SMNA
Subject:	**MINUTES – PCAG MEETING OF 07/10/03**		

PRESENT: See sign-in roster.

AGENDA: Items re-ordered so Olin Action Plan discussed first.
Meeting coordinated by Chair Sylvia Hamilton and Harvey Packard (RWQCB).

Minutes of 6/12/03 Meeting: The minutes were approved as written, thanks to Tom Mohr's mighty efforts.

Olin Action Plan: See Olin report of 6/30/03 (available on SCVWD [Santa Clara Valley Water District] website (www.valleywater.org), although lacking illustrations at the time of this meeting), and TOSC summary of report.

The report discusses only clean-up of on-site contamination. Reid Fisher expressed concern that previous understanding had been that Olin was to discuss off-site issues in this report, including alternatives for cleanup of groundwater. Concern was also expressed about Olin's fuzzy timeline. There are no specifics about when offsite treatment alternatives are to be identified, when pilot studies are to be begun/completed, and when mitigation is to be implemented. Input from SCVWD and RWQCB (Regional Water Quality Control Board) was that in general, Olin is making good headway, although they are a bit overwhelmed. Tom Mohr's (SCVWD) opinion was that the number and locations of samples is well above and beyond the level required by the RWQCB. There are reportedly ongoing meetings between Olin and water suppliers. As written, this report appears to be intended to provide data for selection and design of on-site soil cleanup. Currently, there is a target date of winter 2003-2004 for implementing on-site cleanup. Tom Mohr noted that the SCVWD had hoped for very near term hydraulic containment of contamination at the site (by pumping and treating). The amount of cleanup left to do at the site is relatively little, since the highly soluble nature of perchlorate means the bulk of the contamination has left the site.

Olin sampling found 111 wells with contamination between 2 – 4 ppb; SCVWD sampling found about 200 other wells in the same range, for a total of about 400 wells. The policy for bottled water distribution was discussed later in the meeting.

Contamination on- and off-site in three general depth zones was discussed: 0-50 ft; 50-200; and greater than 200 ft. Groundwater at the site reaches well up into the shallowest of these three zones.

The plastic cap at the site will be extended (if it hasn't been already) to cover a third area, or more as needed. This cap is intended to help prevent rainfall from leaching perchlorate from near-surface soils and injecting it into the groundwater.

Grab samples were distinguished from monitoring well samples. Grab samples only characterize a very small volume. They are therefore very targeted and fast, but not necessarily representative of overall levels of contamination in a larger volume of water such as that drawn on by a well. Well samples typically gather water from a 5 to 10-foot screened interval of a well, and are considered more representative.

The City of Morgan Hill's Tennant well has a 200-foot screened interval. It is likely that the detected contamination in that well is from water in a relatively narrow interval(s) that is mixed with clean(er) water from other depth intervals.

Drilling techniques (and well construction details?) employed by Olin (more accurately, their consultant MacTech) are detailed in their work plan, filed with the RWQCB.

Tracer studies now are probably not helpful. They move too slowly to be of real help. Groundwater conditions now may not be the same as when contamination was introduced, so flow paths might be different. The perchlorate itself is has functioned well as a tracer, since it is so soluble.

Isotopic studies to distinguish Olin's perchlorate from other potential sources is probably not feasible at the low concentrations we have, but has been explored.

The ion-exchange technology currently being explored for groundwater treatment will be perchlorate-specific. It may initially affect nitrate content, but is not intended to have a long-term effect.

Reinjection of treated groundwater is not currently proposed, because it would require a separate permit. Discharge of less than 50 gpm of pumped/treated water is anticipated. The water would likely be discharged via a ditch to Tennant Avenue, under a NPDES permit issued by the RWQCB.

Tom Mohr (SCVWD) thanked TOSC for an excellent summary of Olin/Mactech's report.

Harvey Packard (RWQCB) added a number of general comments:

In coming months, there will be several reports from Olin regarding selection and design of mitigation alternatives. The RWQCB is meeting regularly with Olin.

In addition to wells showing contamination, 42 wells offsite will be monitored quarterly. These wells have not been selected yet.

Additional sampling ("extended Tier 4 sampling") proposed for 161 wells will address the areas south of Leavesly to Holsclaw, west of Monterey Road, and on the eastern side of the valley. Details regarding this proposal may already be online at the SCVWD website, filed under "correspondence." Sylvia Hamilton again offered SMNA's assistance in contacting well owners in target areas for sampling, in order to speedily obtain permission.

Tom Mohr clarified that the SCVWD's ongoing general basin-wide groundwater monitoring program will continue as a parallel effort. The basin-wide monitoring program will likely now track perchlorate in addition to a host of other salts/minerals/chemical species tracked in the past.

The next RWQCB meeting is July 11, 2003, in San Luis Obispo. The following meeting may be a September meeting in Seaside.

Bottled Water Transition: Tom Mohr (SCVWD) reported on the status of the bottled water transition, distributing a draft FAQ (Frequently Asked Questions) sheet for public feedback. Information will also be available on the District's website (www.valleywater.org). Among the major points covered:

Although the responsibility rests with Olin, the SCVWD took the lead in January, 2003 in providing water upon learning of off-site contamination, with the understanding that Olin would repay the District. At least approximately 1200 homes are being supplied by SCVWD, with another roughly 800 supplied by Olin. Invoicing will transfer to Olin for all homes.

The policy for water delivery (as elaborated in the FAQ sheet) will be:

- For wells with more than 4 ppb, bottled water will continue to be supplied
- For wells with 2 – 4 ppb, bottled water will be supplied until 4 tests show levels of less than 4 ppb.
- For wells less than 2 ppb, bottled water service at no charge to residents will be discontinued.

Because of detection/data reporting limits for about 70 homes tested early in the process, these homes will continue to receive water until test results are received that have detection/data reporting limits comparable to other wells tested.

PMAG and Health Issues:
No update was available from the Perchlorate Medical Advisory Group, and the core problem remains that there is very little health data available.

Greg Wassenhove (County Agricultural Commissioner) reported that there are a number of labs interested in providing testing of crops if desired, with levels of detection varying between labs. There is a state-level working group addressing the problem of standardizing test protocol.

There was spirited discussion of whether growers could be irresponsibly driven out of business by reporting test data for a substance that's not yet shown to be harmful at the levels which could be found in crops.

There was a suggestion that the County Supervisors, County Agricultural Commissioner's office, and SCVWD ought to fund at least limited testing of crops. One excellent suggestion was to pick and freeze samples now, for possible later analysis when a study is designed. Bob Cerruit gave an update on his tomato-growing experiment using well water and bottled water.

Tom Mohr noted that although a "snapshot" could be taken with a relatively small budget (for example $10,000 allotted for testing at $300/test) it could be meaningless or misleading without risk assessment and a statistically valid study, which could cost more than $100,000. It may also be difficult to obtain public funding for a study unless all results are made public.

Miscellaneous:
A legislative summary prepared by Assemblyman John Laird's office was distributed.

Evening versus daytime meetings were discussed. It was decided to try evening meetings, on the 4th Thursday of each month, using the Lion's Club's kind offer of space for meetings.

By-Laws were distributed and discussed. There was great appreciation for the effort that went into developing the By-Laws. The points of discussion included:

- The criteria for discharge from the committee.
- Roberts Rules of Order are currently called for in the By-Laws. In order to facilitate discussion and input from members of the public, it was proposed that the By-Laws be modified so as to permit informally-run meetings unless the Chair or a majority of voting members vote to overrule this.
- Currently there appears to be no need for a timekeeper (to keep speakers in check).
- Currently there appears to be no need for specifying a timeline for minutes distribution.

- Currently there appears to be no need for modifying the conflict-of-interest discussion in the By-Laws.

Upcoming (at time of meeting):
July 30 and 31, 2003 – Tom Mohr announced an upcoming GRA (Groundwater Resources Association) conference and field trip in the Sacramento area (www.grac.org for additional details). The focus of this conference is perchlorate contamination, with discussion of treatment systems, development of health standards, regulation, and mitigation alternatives. Tom Mohr will give a talk on the San Martin plume. San Martin is by no means unique in suffering perchlorate contamination, and is just one of the areas that will be touched on at this conference.

NEXT PCAG MEETING: *Thurs August 28, 2003, 7 – 9pm at San Martin Lions Club Hall, 12415 Murphy Ave., San Martin.* Agenda items to Sylvia Hamilton (sylvialrs@hotmail.com).

Minutes submitted by Reid Fisher